

said slider is provided with

a gear system comprising at least a pinion and its shaft, engaged with said rack; and

a sealed cavity is provided with

a stator plate of the first electrode forming a certain pattern fastened on said slider and electrically coupled with said measuring circuit; and

a rotor plate of the second electrode forming a certain pattern concentrically opposed at a distance to said first electrode set, and fastened onto said shaft of said gear system, which penetrates through a motive sealing member on said cavity wall, and connected to said gear system outside said cavity.

23. A capacitive digital caliper according to claim 22, wherein the indexing of said rack is installed in parallel with the sliding direction of measurement.

24. A capacitive digital caliper according to claim 22, wherein said first and second electrode sets mutually opposed is circular-grid-shaped.

25. A capacitive digital caliper according to claim 24, wherein said rotor plate is disc-shaped.

26. A capacitive digital caliper according to claim 22, wherein the slipped position of said slider on said main beam is a function of rotational angular position of said rotor plate and the circles turned over.

27. A capacitive digital caliper according to claim 22, wherein said rack and said pinion as well as said sealed cavity connected with said rack and pinion can be installed on the front face of said caliper.

28. A capacitive digital caliper according to claim 22, wherein said rack and said pinion as well as said sealed cavity connected with said rack and pinion can be installed on the back face of said caliper.

29. A capacitive digital caliper according to claim 22, wherein said measuring display device is provided outside said sealed cavity.

30. A capacitive digital caliper according to claim 29, wherein said measuring circuit board of said measuring display device is formed to a wall of said sealed cavity.

31. A capacitive digital caliper according to claim 22, wherein said measuring display device is confined within said sealed cavity.

32. A capacitive digital caliper according to claim 22, wherein said stator plate is fastened on the bottom of said measuring circuit board.

33. A capacitive digital caliper according to claim 22, wherein said stator plate is fasten on the top of said measuring circuit board.

34. A capacitive digital caliper according to claim 33, wherein said rotor plate is provided between said measuring display and said measuring circuit board via said shaft penetrates through said stator plate.

Remarks

Claims 22-34 are pending in the application. No new matter has been added to the application by way of these claim amendments.

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